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IN THE UNITED STATES DISTRICT COURT
FOR THE DISTRICT OF WYOMING

STEPHANIE WADSWORTH Individually and as Parent and Legal Guardian of W.W., K.W., G.W., and L.W., minor children and MATTHEW WADSWORTH Plaintiff, v. WALMART, INC. and JETSON ELECTRIC BIKES, LLC Defendants.	Case No. 2:23-cv-00118-NDF **DEFENDANTS JETSON ELECTRIC BIKES, LLC AND WALMART INC.'S RESPONSE MEMORANDUM IN OPPOSITION TO PLAINTIFFS' MOTION TO EXCLUDE EXPERT TESTIMONY OF JOSEPH FILAS**

WALMART INC. ("Walmart") and JETSON ELECTRIC BIKES, LLC ("Jetson"), (collectively "Defendants"), by and through their attorneys, Crowley Fleck PLLP and McCoy

Leavitt Laskey LLC, hereby submit their response in opposition Plaintiffs' Motion to Exclude Expert Testimony of Joseph Filas.

ARGUMENT

Plaintiffs contend that Defendants' proffered origin and cause expert, Joseph Filas, CFI, CFEI, is unqualified to render opinions regarding the origin and cause of the fire. Plaintiffs' contentions are meritless. Filas' opinions meet the reliability and admissibility standards set forth by Rule 702 because Filas has the requisite knowledge, skill, training and education to render origin and cause opinions. Filas conducted his investigations pursuant to the methodology laid out by NFPA 921, in conjunction with the other investigators present at the numerous site inspections and laboratory examinations. Filas' consideration of the arc mapping conducted by Brian Strandjord and fire modeling conducted by Greg Gorbett was appropriate. Arc mapping is recognized under NFPA 921 as a tool that can be considered in determining the area of origin. Similarly, computer modeling is an authorized process under NFPA 921 to assist in origin determinations.[1] Finally, Filas' opinions are necessary for a jury to understand the technical and scientific nature of the fire's origin and cause.

Moreover, pursuant to *U.S.D.C.L.R. 7.1(b)(1)*[2], Plaintiffs were required to meet and confer with Defendants regarding all non-dispositive motions. Rule 7.1(b)(1) states "[t]he moving party shall state in the motion the specific efforts to comply with this rule and the position of the opposing party. A motion may be summarily denied for failure to certify conferral …"

[1] Plaintiffs have filed Daubert motions to preclude the testimony of Defendants' experts, Brian Strandjord and Greg Gorbett. Defendants hereby incorporate their Memoranda in Support of the Oppositions to the Motions to Preclude Strandjord and Gorbett.

[2] U.S.D.C.L.R 7.1(b)(1)(C) also limits motions to preclude the testimony of expert witnesses to a maximum of ten (10) pages. Plaintiffs' brief to exclude Filas was 18 pages long after removing the first page, which contains the case caption and last page, which primarily contained the attorney signature blocks. This is a clear violation of the Local Rules.

U.S.D.C.L.R. 7.1(b)(1)(A). Plaintiffs did not meet and confer and did not include the required meet and confer statement in their motion. Therefore, Plaintiffs' motion can be summarily denied.

I. FILAS' OPINION MEETS THE STANDARDS SET FORTH IN RULE 702 FOR EXPERT TESTIMONY.

Rule 702 states "a witness who is qualified as an expert by knowledge, skill, experience, training, or education may testify in the form of an opinion or otherwise if the proponent demonstrates to the court that it is more likely than not that**:**

(a) the expert's scientific, technical, or other specialized knowledge will help the trier of fact to understand the evidence or to determine a fact in issue;
(b) the testimony is based on sufficient facts or data;
(c) the testimony is the product of reliable principles and methods; and
(d) the expert's opinion reflects a reliable application of the principles and methods to the facts of the case."

Fed. R. Evid. 702. For the reasons set forth below, Filas is a qualified origin and cause expert who based his opinions on sufficient facts and data. Filas' opinions are the product of reliable principles and methods and will assist the trier of fact in the determination of the origin and cause of the fire.

A. Filas' knowledge, skill, experience, training, and education as a certified fire and explosion investigator and origin and cause expert qualify him to offer origin and cause opinions.

A witness is qualified as an expert by knowledge, skill, experience, training, or education. *Daubert v. Merrell Dow Pharmaceuticals, Inc.*, 508 U.S.579, 588 (1993). It is not paramount that witnesses satisfy all of these qualifications so long as the witness' overall qualifications provide expertise relevant to the opinions offered. *Sinclair Wyoming Ref. Co. v. A&B Builders, Ltd.*, 2018 WL 4698781, at *2 (D. Wyo. Sept. 11, 2018). As a result, Rule 702 is to be liberally construed in that it "does not impose an 'overly rigorous' requirement of expertise, recognizing that specialized knowledge may be acquired through a broad range of experience, skills or training." *Id.; Squires v. Goodwin*, 829 F. Supp. 2d 1041, 1048 (D. Colo. 2011) (citing *United States v. Velasquez*, 64 F.3d 844, 849 (3d Cir. 1995)).

Filas has a Bachelor of Science degree in Fire and Safety Technology with an emphasis in Fire, Arson, and Explosion Investigation from Eastern Kentucky University. (Doc. 80-1, p. 93). He is a Certified Fire Investigator (CFI) with the International Association of Arson Investigators, and a Certified Fire and Explosion Investigator (CFEI) with the National Association of Fire Investigators. (Id.). Filas has conducted over 1,700 fire origin and cause investigations over his 24-year career as a fire investigator. (Id.). It is absurd for Plaintiffs to claim that Filas is not qualified. He clearly has the knowledge, skill, training, education and experience to offer expert testimony on the origin and cause of the fire. *See Daubert*, 508 U.S. at 588; *Sinclair Wyoming Ref. Co. v. A&B Builders, Ltd.*, No. 15-CV-91-ABJ, 2018 WL 4698781, at *2 (D. Wyo. Sept. 11, 2018).

Plaintiffs make a baseless allegation that Filas lacks experience investigating fire and explosions related to personal mobility devices like hoverboards. A fire caused by a hoverboard, or any other item, is independent to the origin of a fire. Filas has not presented any opinions on the potential failure analysis of the hoverboard. Defendants' battery expert, Samuel Sudler, analyzed whether the hoverboard could have caused the fire and definitively concluded that it did not. (*See generally* Doc. 80-7). Filas did not include the hoverboard in his cause hypothesis because it was not within the origin of the fire at the shed. (*See* Doc. 80-1, p. 43-46).

Plaintiffs contend that nothing in Filas' CV identifies education, training, or background in arc mapping or fire dynamics analysis. However, Filas' CV states "[h]e is knowledgeable on standard practices regarding fire investigation methodology, fire science, fire dynamics, and evidence collection procedures." (*See* Id. at p. 93). Filas has taken numerous formal education and continuing education courses, which included courses on arc mapping and fire dynamics analysis among a multitude of other topics. (*See generally* Doc. 80-2, p. 3-4).

Next, Plaintiffs contend that Filas has no specific certification in arc mapping or fire dynamics analysis, and no professional experience with arc mapping or fire dynamics analysis outside of his expert witness consulting work. This argument also misses the mark. While Filas relied on Defendants' electrical engineering expert, Brian Strandjord, for the identification of the electrical arc locations, Filas, as an origin and cause investigator is then able to take those locations and apply it to his fire pattern analysis. Arc mapping analysis is included in the fire pattern analysis which is one of the three categories that a fire investigator uses to determine the origin of the fire. The three categories are witness statements/electronic data, fire patterns ("which may include patterns involving electrical conductors"), and fire dynamics. (LaFlamme Dec. ¶¶6-7, Ex. 2-3: NFPA 921, §18.1.2 (2021) and (2024)).

Similarly, fire dynamics analysis can be conducted by any competent fire investigator. (*See generally* LaFlamme Dec. ¶6, Ex. 2: NFPA 921 at §6.2 (2021)). Fire dynamics is the study of how chemistry, fire science, material science and the mechanical engineering disciplines of fluid mechanics and heat transfer interact to influence fire behavior. (LaFlamme Dec. ¶6, Ex. 2: NFPA 921 at §3.3.73 (2021)). The analysis of fire dynamics includes the physics and chemistry of fire initiation and growth and the interaction between the fire and the buildings systems. (LaFlamme Dec. ¶¶6-7, Ex. 2-3: NFPA 921, §21.4.8 (2021) and (2024)). As a CFEI and CFI, Filas has the requisite knowledge, skill, training, education and experience to offer expert testimony on how arc mapping and fire dynamics analysis played a role in his determination of the origin and cause of the fire. *See Daubert*, 508 U.S. at 588; *Sinclair Wyoming Ref. Co.* 2018 WL 4698781, at *2.

B. Filas applied NFPA 921's methodology to his analysis and opinion of the physical evidence.

Courts readily accept NFPA 921 as a barometer for determining the reliability of methods used by fire investigation experts. *Philmar Dairy, LLC v. Armstrong Farms,* No. 18-CV-0530

SMV/KRS, 2019 WL 3070588, at *9 (D.N.M. July 12, 2019) (collecting cases). NFPA 921 recommends that fire investigators use a 'systemic approach' based on the scientific method used in the physical sciences. *Ball Corporation v. Air Tech of Michigan, Inc.*, 2022 WL 1801120, at *5 (citing NFPA 921). Fire investigators can use a wide variety of approaches, including arc mapping and fire modeling, to investigate the origin and cause of a fire. (LaFlamme Dec. ¶ 6, Ex. 2: NFPA 921, §§ 6.3.21, 18.1.2, 18.6.2.2, 21.4.8 (2021)).

1. Arc mapping is recognized Under NFPA 921 as a tool that can be considered in determining the area of origin and was appropriately considered by Filas.

The internationally recognized and generally accepted standard of care for fire investigation (NFPA 921) utilizes, and has utilized for decades, the scientific methodology of arc mapping. "Noting the location of arc sites at the fire scene was first introduced to the fire investigation community within NFPA 921, 2001 edition." (LaFlamme Dec. ¶8, Ex. 4: *Forensic Examination of Post-Fire Damaged Electrical Conductors by Using X-Ray Radiographs, 2023*). "Electrical engineers have been researching electricity, electrical systems, arcing faults, and arc flash for more than 100 years." (LaFlamme Dec. ¶9, Ex. 5, *Forensic Examination of Post-Fire Damaged Electrical Conductors by Quantitative Measurement, 2023)*. In fact, NFPA 921, of which arc mapping is a part, is a consensus document authored jointly by many individuals in the fire investigation community. (LaFlamme Dec. ¶10, Ex. 6: Strandjord Dep. 83:13-22).

Section 1.3 of NFPA 921 in both the 2021 and 2024 editions states:

> [t]his document is designed to produce a systematic, working framework or outline by which effective fire and explosion investigation and origin and cause analysis can be accomplished. It contains specific procedures to assist in the investigation of fires and explosions. These procedures represent the judgment developed from the NFPA consensus process system that if followed can improve the probability of reaching sound conclusions.

(LaFlamme Dec. ¶¶6-7, Ex. 2-3: NFPA 921, §1.3 (2021) and (2024)). NFPA 921 recognizes that "[a]n electrical fault will usually produce characteristic damage that may be recognized after a fire. Evidence of these faults may be useful in locating the area of origin." (LaFlamme Dec. ¶7, Ex. 3: NFPA 921 § 6.6.1 (2024)).

Plaintiffs claim that arc mapping is no longer listed as one of the four main methods for establishing fire origin in NFPA 921. This is a misrepresentation of NFPA 921. Arc mapping analysis was not removed as one of the four main methods of establishing fire origin. The 2017 version of NFPA 921 listed the coordination of information derived from one or more of the following: 1. Witness statements, 2. Fire patterns, 3. Arc mapping, and 4. Fire dynamics. (LaFlamme Dec. ¶5, Ex. 1: NFPA 921 § 18.1.2 (2017)). The difference after 2017 was not that arc mapping was removed from NFPA 921, it was simply placed in the fire patterns and fire dynamics chapter within NFPA 921. Chapter 6, which is titled "Fire Effects and Fire Patterns" of both the 2021 and 2024 editions of NFPA 921, discusses arc mapping analysis and its importance as a tool in fire investigation. Arc mapping is still recognized under NFPA 921 as a tool in determining the area of origin. Filas appropriately considered the arc mapping conducted by Strandjord in reaching his origin and cause conclusions because it is a reliable methodology and is specifically authorized under NFPA 921.

2. Fire dynamics analyses can be used and are accepted under NFPA 921 to evaluate the origin hypotheses by use of fire modeling.

Computer modeling is also an authorized process under NFPA 921. In fact, under the chapter dedicated to identifying the area of origin for a fire – Chapter 18 in both the 2021 and 2024 editions – NFPA 921 Section 18.6.2.2 states:

> **18.6.2.2. Fire Modeling.** Fundamentals of fire dynamics can be used to test hypotheses regarding fire origin. Such fundamentals are described in the available scientific literature and are incorporated into fire models ranging from simple

> algebraic equations to more complex computer fire models (*see 21.4.8*). The models use incident-specific data to predict the fire environment given a proposed hypothesis. **The results can be compared to physical and eyewitness evidence to test the origin hypothesis.** Models can address issues related to fire development, spread, and occupant exposure.

(LaFlamme Dec. ¶¶6-7, Ex. 2-3: NFPA 921 §18.6.2.2 (2021) and (2024)) (**emphasis added).**

As referenced in the above quoted section, Section 21.4.8 in both the 2021 and 2024 editions further states:

> **21.4.8 Fire Dynamics Analysis**. Fire dynamics analyses consist of mathematical equations derived from fundamental scientific principles or from empirical data. They range from simple algebraic equations to computer models incorporating many individual fire dynamics equations. Fire dynamics analysis can be used to predict fire phenomena and characteristics of the environment such as the following:
>
> (1) Time to flashover
> (2) Gas temperatures
> (3) Gas concentrations (oxygen, carbon monoxide, carbon dioxide, and others)
> (4) Smoke concentrations
> (5) Flow rates of smoke, gases, and unburned fuel
> (6) Temperatures of the walls, ceiling, and floor
> (7) Time of activation of smoke detectors, heat detectors, and sprinklers
> (8) Effects of opening or closing doors, breakage of windows, or other physical events.

(LaFlamme Dec. ¶¶6-7, Ex. 2-3: NFPA 921 §21.4.8 (2021 and 2024)). Defendants' computational fluid dynamics fire modeling expert, Dr. Greg Gorbett, performed the fire modeling in this case. Gorbett specifically compared his modeling results to the physical and eyewitness evidence consistent with NFPA 921 § 18.6.2.2. (*See generally* Doc. 80-4). Within the two competing fire origin theories in this case (i.e. the shed or the hoverboard) are the issues and fire development, fire spread and occupant exposure/survivability, which Gorbett's models assessed. (*See generally* Id.). This is exactly how NFPA 921 says computer fire modeling should be used. (LaFlamme Dec. ¶¶6-7, Ex. 2-3: NFPA 921 § 18.6.2.2 (2021) and (2024)). Moreover, in his report, Gorbett walks through the above eight fire phenomena and environmental characteristics listed in NFPA 921 §

21.4.8 as well as the methodology and calculations that he used to assess these factors within the context of his fire model. (*See generally* Doc. 80-4).

Fire modeling is a reliable tool that fire investigators use to assist in the determination of the cause of the fire. It is sanctioned by NFPA 921 and has been allowed as expert testimony in other courts. *See e.g. Turner,* No. 07-cv-00163, 2007 WL 2713062 (N.D. Ohio Sept. 14, 2007); *In re M/V MSC FLAMINIA,* No. 12-CV-8892 (KBF), 2017 WL 3208598, at *38–39 (S.D.N.Y. July 28, 2017). Gorbett's fire modeling and methodology was reliable, and Filas, as the origin and cause expert, appropriately considered it in rendering his opinions in this case.

3. Filas' opinions are based on sufficient facts and data as he considered all of the relevant evidence and conducted his investigation in accordance with NFPA 921.

Plaintiffs contend that Filas' opinions are not based on sufficient facts and data because he omitted evidence that necessarily should have been included for a full and adequate analysis. This is a bold assertion, given that Plaintiffs' only expert on causation, Derek King, failed to consider a mountain of critical evidence in reaching his conclusions. (*See* Doc. 105, p. 8-11). Filas, on the other hand, considered all of the evidence. (*See* Doc. 80-1, p. 47-49). He attended the scene and lab exams, reviewed the fire reports and photographs, the discovery exchanged by the parties, he reviewed the interviews, statements and testimony of the witnesses, the depositions of the first responders and the reports of Plaintiffs' purported expert witnesses. (*See* Id.). King did none of those things. (*See* Doc. 105, p. 8-11).

Filas developed a hypothesis that electrical arcing occurred to a conductor at the space heater power cord and extension cord within the shed. He used NFPA 921, Chapter 6 and 7 to correctly identify the visual characteristics of evidence of arcing, completed arc mapping of the discovered arcs on the circuits with the help of Strandjord, completed arc mapping analysis that

essentially created a fire pattern, and applied Gorbett's computational fluid dynamics fire modeling analysis to test his hypothesis as to the origin of the fire based upon the arc mapping analysis. (*See generally* Doc. 80-1, p. 43-46). Filas did not rely solely on arc mapping or fire modeling for his origin and cause opinions. They were only two of the tools he used in testing his hypothesis. (Doc. 80-1, p. 43-46). He also considered the burn testing, fire pattern analysis, sequential pattern analysis and witness statements and testimony. (Id. at p. 40-46).

In short, Filas considered **all** of the evidence in reaching his conclusions. (Id.). Filas' conclusion that the fire originated at the smoking shed due to an improperly discarded cigarette reliably flowed from his reliable scientific methodology and the facts at issue. *Heller v. Shaw Industries, Inc.*, 167 F.3d 146, 152 (3rd Cr. 1999) (holding that an expert opinion is admissible if it is based on reliable methodology and reasonably flowed from that methodology and the facts at issue). Plaintiffs' motion must be denied.

C. Filas' testimony will assist the trier of fact in understanding the origin and cause of the fire.

Expert opinion testimony is admissible when the scientific, technical, or other specialized knowledge will assist the trier of fact in understanding or determining a fact in issue – essentially asking whether the expert's testimony 'fits' the facts of the case goes to the relevancy of the testimony. *Graham v. Playtex Products, Inc.*, 993 F.Supp. 127, 130 (1998) (citing *Daubert*, 509 U.S. 579). Moreover, "the 'helpfulness' standard incorporated in F.R.E. 702 means that the expert's opinion must relate to an issue that is actually in dispute and must provide a valid scientific connection to the pertinent inquiry." *Graham*, 993 F.Supp at 130 (citing Margaret A. Berger, *Procedural Paradigms for Applying the Daubert Test*, 78 Minn.L.Rev. 1345, 1351 (1994)).

Filas' origin and cause opinions are founded in scientific, technical, and specialized knowledge as he conducted his investigation in accordance with the principles and methodology

outlined in NFPA 921, as outlined in Section I(B)(3) *supra* and in his report. (*See generally* Doc. 80-1). Filas explains in great length how the opinions expressed by Detective Jeff Sheaman and Mr. Schulz are inaccurate because they are not consistent with the witness statements, proper identification of fire patterns, dynamics of fire development, arc mapping analysis, overall methodology of fire investigations, or all known data. (Id. at p. 37-43, 46). Filas' opinions will assist the trier of fact in understanding and determining the central issue in this case - where the fire started and what caused it. *See Graham*, 993 F.Supp at 130. Therefore, Plaintiffs' motion must be denied and Filas should be permitted to testify.

CONCLUSION

Based on the aforementioned reasons, Plaintiffs' Motion to Exclude the Purported Expert Testimony of Joseph Filas, CFI, CFEI, should be DENIED. If this Court is inclined to grant Plaintiffs' motion, Defendants request that the Court conduct a *Daubert* evidentiary hearing and hear testimony directly from Filas on his methodology, opinions, and bases for his opinions.

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Dated: December 16, 2024

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